1. Python Program for n-th Fibonacci number

def fibonacci(n):

if n <= 0:

return "Invalid input. Please enter a positive integer."

elif n == 1:

return 0

elif n == 2:

return 1

else:

a, b = 0, 1

for \_ in range(3, n + 1):

a, b = b, a + b

return b

n = int(input("Enter the value of n: "))

result = fibonacci(n)

print("The", n, "th Fibonacci number is", result)

1. Python Program for How to check if a given number is Fibonacci number?

def is\_fibonacci(num):

if num < 0:

return False

elif num == 0 or num == 1:

return True

else:

a, b = 0, 1

while b <= num:

if b == num:

return True

a, b = b, a + b

return False

num = int(input("Enter a number: "))

if is\_fibonacci(num):

print(num, "is a Fibonacci number")

else:

print(num, "is not a Fibonacci number")

1. Python Program for n\’th multiple of a number in Fibonacci Series

def fibonacci\_multiple(n, k):

if n <= 0 or k <= 0:

return "Invalid input. Please enter positive integers."

elif n == 1:

return 0

else:

a, b = 0, 1

count = 2

while count <= n:

a, b = b, a + b

count += 1

return k \* b

n = int(input("Enter the value of n: "))

k = int(input("Enter the value of k: "))

result = fibonacci\_multiple(n, k)

print("The", n, "th multiple of", k, "in the Fibonacci series is", result)

1. Program to print ASCII Value of a character

character = input("Enter a character: ")

ascii\_value = ord(character)

print("The ASCII value of", character, "is", ascii\_value)

1. Python Program for Sum of squares of first n natural numbers

def sum\_of\_squares(n):

if n <= 0:

return "Invalid input. Please enter a positive integer."

else:

return sum([i\*\*2 for i in range(1, n+1)])

n = int(input("Enter the value of n: "))

result = sum\_of\_squares(n)

print("The sum of squares of first", n, "natural numbers is", result)

1. Python Program for cube sum of first n natural numbers

def cube\_sum(n):

if n <= 0:

return "Invalid input. Please enter a positive integer."

else:

return sum([i\*\*3 for i in range(1, n+1)])

n = int(input("Enter the value of n: "))

result = cube\_sum(n)

print("The cube sum of first", n, "natural numbers is", result)

1. Python Program to find sum of array

def sum\_of\_array(arr):

return sum(arr)

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

result = sum\_of\_array(array)

print("The sum of the array elements is", result)

1. Python Program to find largest element in an array

def find\_largest(arr):

return max(arr)

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

result = find\_largest(array)

print("The largest element in the array is", result)

1. Python Program for array rotation

def array\_rotation(arr, d):

n = len(arr)

rotated\_arr = arr[d:] + arr[:d]

return rotated\_arr

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

d = int(input("Enter the value of d for rotation: "))

result = array\_rotation(array, d)

print("The array after rotation is", result)

1. Python Program for Reversal algorithm for array rotation

def reverse\_array(arr, start, end):

while start < end:

arr[start], arr[end] = arr[end], arr[start]

start += 1

end -= 1

def array\_rotation(arr, d):

n = len(arr)

reverse\_array(arr, 0, d-1)

reverse\_array(arr, d, n-1)

reverse\_array(arr, 0, n-1)

return arr

array = [int(x) for x in input("Enter the array elements separated by space: ").split()]

d = int(input("Enter the value of d for rotation: "))

result = array\_rotation(array, d)

print("The array after rotation is", result)

1. Python Program to Split the array and add the first part to the end